



2017 Annual Sustainability Report

Fit for the Future

The Centers for Disease Control and Prevention (CDC) promotes efficiency and operational improvements for increased quality, accountability, and stewardship of CDC assets. As part of the Department of Health and Human Services (HHS), CDC promotes sustainable workplaces because healthy environments are a requirement for human health. Sustainability is not just about the health and well-being of the planet, it is about the health and well-being of people.



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention

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www.cdc.gov/sustainability



OUTREACH AND PARTNERSHIPS

North American Laboratory Freezer Challenge

In 2017, CDC participated in the inaugural North American Laboratory Freezer Challenge. The Freezer Challenge promotes best practices in cold storage management covering all forms of cold storage, including refrigerators, freezers, and cold rooms. Through the efforts of six CDC laboratories, CDC saved 367,000 kWh/year and will save money in avoided utility costs. Out of 1,300 participating laboratories nationwide, CDC's participating labs won the government sector award. The Elemental Analysis lab team under Deanna Jones, Ph.D., National Center for Environmental Health, won the individual lab award.

CDC-wide Recycling Ambassadors

Volunteer recycling ambassadors serve as liaisons to CDC's recycling office and are champions within their CDC Centers, Institute, and Offices. Ambassadors educate their colleagues and identify opportunities for improvement with single-stream and laboratory recycling. Together, ambassadors implemented recycling stations and instructional signage to improve cafeteria recycling.

Community Recycling Drive

As part of Keep America Beautiful's nationally-recognized "America Recycles Day," CDC partnered with local organizations to host a community recycling drive. Recycling is fundamental to a healthy environment and economy. Volunteers collected 9 tons of e-waste, paper, glass, plastic, paint, cardboard, light bulbs, and household items.

Learning About Innovative Workplace Trends

To ensure best-in-class facilities, CDC developed a webinar series for staff exploring high-performing buildings and exemplary approaches to sustainability. The series included virtual tours of new cutting-edge laboratories, workplace utilization trends, resilient community solutions, and international sustainability assessment tools.

Earth Week: Body, Mind, Community

CDC celebrates Earth Week along with an employee health campaign. The *Nourish: Body, Mind, Community* theme integrated different aspects of wellness, emphasized the connection between health and sustainability, and encouraged responsible environmental stewardship. Nearly 1,000 staff participated by attending earth walks, seminars, or campus expos.

Creating Tools for Healthier Design

CDC partnered with the Center for Active Design to expand Fitwel® to incorporate healthy design strategies in home and work environments. Amenities such as accessible stairs, lactation rooms, and walking trails contribute positively to occupant health. The expanded program helps designers improve public health outcomes in the built environment.









Making Design Tools Accessible

CDC subject matter experts shaped the revision of the American Institute of Architects' (AIA) Lactation Room Design Guide. The guide, translated into Spanish, Chinese, and French, includes drawings and specifications to educate designers. AIA reports a readership of over 90,000 design professionals for this tool.

Designing Active Transportation Networks

CDC participated in planning and expanding greenway trails in the Atlanta area. New pedestrian and cycling infrastructure will increase active commuting in the region.

SUSTAINABILITY GOAL AREAS

-  **GOAL 1A** Energy/Greenhouse Gas Emissions Reduction | *Bruce Jue*
-  **GOAL 1B** Scope 3 Greenhouse Gas Emissions Reduction | *Scott Kemp*
-  **GOAL 2** Sustainable Buildings | *Steve Klim*
-  **GOAL 3** Fleet Management | *Shirley Alston*
-  **GOAL 4** Water Efficiency | *Bruce Jue*
-  **GOAL 5** Waste Management | *Willie Potter*
-  **GOAL 6** Sustainable Acquisitions | *Sarah Gray*
-  **GOAL 7** Electronic Stewardship | *Tim Horner*
-  **GOAL 8** Renewable Energy | *Bruce Jue*
-  **GOAL 9** Climate Resilience | *Lauren Dufort*
-  **GOAL 10** Performance Contracts | *Steve Klim and Sarah Gray*



2.8%
Total energy intensity
reduction since FY 2015
(new baseline year)



12.1%
Total eligible renewable
electricity use



44.4%
Water intensity reduction
since 2007



6%
Clean energy use
(electric and alternative
energy combined)

PROJECTS AND ACHIEVEMENTS

Creating Healthier Buildings

CDC continues its commitment to occupant health, using Fitwel as a public health tool. Fitwel, a voluntary national building certification, promotes healthier workplace environments by incorporating evidence-based practices that support the physical, mental, and social health of occupants. CDC certified a second Fitwel building, receiving two out of three possible stars, and plans to certify one building per quarter.

Waste Characterization Study

In order to achieve CDC's 50% waste diversion goal, recycling stakeholders conducted a CDC-wide waste characterization study. The assessment included visits to each CDC campus, waste profiling, interviewing waste management staff, and collecting data. Best practices and recommendations will be implemented in 2018.

EV Charging Pilot Update

Improvements continued in fleet electric vehicle (EV) initiatives and charging station availability. In 2017, use of EV charging stations grew from 14 to 106 users. A workgroup meets periodically to plan and expand EV charging capabilities on CDC campuses.

Building Setback Expansion

During extreme changes in temperature, modifying the time at which building systems enter "unoccupied mode" each evening can save up to nine times the normal energy and water costs. In 2017, CDC added two more buildings to the program, saving as much as \$316 per day.

UESC/ESPC Contract Awards

Energy savings performance contracts (ESPC) are an innovative financing technique that use cost savings from reduced energy and water consumption to repay the cost of installing energy and water conservation measures. Under the \$5.6 million Atlanta utility energy savings contract (UESC), CDC installed LED lighting upgrades, lighting sensor controls, solar photovoltaic (PV) arrays, and sub-metering. The \$23.8 million Pittsburgh project includes boiler decentralization, lighting improvements, solar PV carport and EV charging, plumbing improvements, and decommissioning of obsolete buildings. CDC's commitment to ESPCs represents one-third of HHS ESPC contracts.



Vivarium Efficiency Upgrades

Constructed in 1964, one Lawrenceville Campus building is aiming to meet Leadership in Energy and Environmental Design (LEED®) gold standards. The 8,800-square-foot renovation project refreshed laboratory facilities and improved energy efficiency. A lighting upgrade pilot project used LED ambient and task lighting in laboratory spaces. The team hopes to receive official LEED certification in 2008.

Lawrenceville Renovation Highlights



The project **recycled 98% of waste** generated from the building renovation.



Following renovations, the laboratory is **29% more energy efficient** than its baseline.



Water usage is **59% more efficient** than its baseline.



Furniture from the Chamblee Warehouse was **repurposed to furnish** the laboratory.



Planned for 2018, a **249 kW ground-mounted solar array** installation will be the final portion of the project.

UPCOMING PROJECTS IN 2018

UESC/ESPC CONSTRUCTION COMPLETION

FORT COLLINS FITWEL CERTIFICATION

2018 INTERNATIONAL LABORATORY FREEZER CHALLENGE

ATLANTA BETTER BUILDINGS CHALLENGE PARTNERSHIP

LAWRENCEVILLE SOLAR ARRAY INSTALLATION

2018 HHS AND DOE CONFERENCE: Health in Buildings for Today and Tomorrow: Making Connections

"DESIGN FOR HEALTH" WEBINAR SERIES

GREEN GAUGE SUSTAINABILITY DASHBOARD



1,300
CDC staff use
alternative commutes
(bike, bus, rail, shuttle, etc.)



100%
electronic devices (8,790) purchased in
FY 2017 are registered EPEAT (Electronic Product
Environmental Assessment Tool) compliant



100%
monitors, PCs, and laptops
(72,535) are power
management enabled



LETTER FROM THE CSO

As CDC's chief sustainability officer, I am honored to report this year's efficiency and cost-saving initiatives resulting from agency-wide collaboration. I applaud the tireless commitment to innovation that contributes to CDC's continued success in science, surveillance, and service. Sustainability is the key to the long-term health of any organization, and I know our award-winning efforts this

past year contribute to that goal. Aiming high, CDC will continue to lead, looking forward to 2018 as our tenth year of sustainable innovation.

Sincerely,

Liz York, FAIA

Chief Sustainability Officer (CSO)

Associate Director for Quality and Sustainability

HHS GREEN CHAMPION AWARD WINNERS

Each year, HHS identifies Green Champions who are on the forefront of developing high-performance facilities and are working diligently to build a culture of responsible resource management. In FY 2016, CDC received a record-breaking 15 Green Champion Awards and 6 honorable mentions.

CHANGE AGENT FOR ENERGY AND WATER EFFICIENCY: Bruce Jue

ENVIRONMENTAL STEWARDSHIP: Grant W. King

NORTH AMERICAN LABORATORY FREEZER CHALLENGE: Lauren Dufort, Liz York, Allen Doyle, Debra Kuehl, Phil Wirdzek, Allison Paradise, Kathy Ramirez-Agular, Kristi Budzinski

FITWEL CERTIFICATION OF CDC CHAMBLEE BUILDING: Heidi Blanck, Desiree Brown, Joanne Cole, Ron Garner, Joel Kimmons, Stephen Klim, Michael Payne, Ruth Petersen, Liz York

REMOTE ACCESS SYSTEMS PROJECT: Dave Ausefski, Lee Eilers, Andrew Davy, Philip Lindsey

UNIFIED COMMUNICATIONS UPGRADE PROJECT: Richard Self, Clarence Benyard, Troy Nick, Chris Gandy

ITSO MOBILE DEVICE MANAGEMENT PROJECT: Dave Ausefski, Lee Eilers, Andrew Davy, Philip Lindsey

CDC HEAT EXCHANGER PROJECT: Bruce Jue, Jeff Bowen, Larry Rountree, Craig Belflower, Paul Probst, Steve Koob, Steve Battenfeld

AMERICA RECYCLES DAY AT EMORY POINT: Lauren Dufort, Lauren Holman, Taylor Spicer, Deena Keeler, Stacy Schuch, Liz York, Willie Potter

WELLNESS ROOM BEST PRACTICES DESIGN GUIDE: Liz York, Joyce Lee, Yubei Huang, Tong Niu

GREEN HERO VIDEO: Bruce Jue, Stephen Klim, Judy Gantt, Steve Powell

COMPUTER ORDERING ARRANGEMENT: Vicki Johnson, Tiffany Ivy, June Humphrey, Howard Smith, Tim Horner, Alex Null

LAWRENCEVILLE BUILDING REPAIR PROJECT: Bill Dryden, Arthur Lingler, Michael Stepp, Paul Vinson, Angela Wagner, Bruce Jue, Stephen Klim, Lauren Dufort

CDC WASTEWATER TREATMENT INITIATIVE: Bruce Jue, Stephen Klim, Sarah Gray, Jeff Bowen, Neal Bowman, Liz York, Lauren Dufort

FIT FOR THE FUTURE

CDC's Commitment to Sustainability



Optimize water efficiency: conduct water studies for all campuses; monitor and manage consumption; educate leaders on consumption and compliance.



Achieve 20% renewable electricity portfolio by 2020.



Divert at least 50% of non-hazardous solid waste every year through composting and recycling programs; establish at least one commercial composting program.



Invest 5% of funds in sustainable projects.



Bring one building per year into compliance with the Federal Guiding Principles for Sustainable Buildings.



Build at least one net-zero building by 2025.



Balance the fleet composition to include at least 20% electric vehicle and plug-in hybrid vehicles by 2020.



Upgrade to efficient lighting across all Atlanta campuses.



Eliminate all polluting emissions from refrigerants.



Meter CDC-owned data centers and facilities.

2017 SUSTAINABILITY STARS

BECKY RENTZ: Sustainable Lifestyle

PATTI CARROLL: Women's Wellness Rooms

ANNE SCHUCHAT, MD (RADM, USPHS): Leadership in Sustainability

LARA AKINBAMI, MD: Recycling Advocate

GRANT KING: Recycling Advocate

PAUL VINSON: Leadership in Sustainability

ROYBAL STREAMBED CONVERSION AND IMPROVEMENT PROJECT: Sustainable Facilities Initiative

JACKIE VINTIMILLA: Furniture Reuse Initiative

EQUIPMENT REUSE PROGRAM: Recycling Initiative

LAWRENCEVILLE BUILDING DESIGN-BUILD PROJECT: Sustainable Facilities Initiative

FATEMA SADIQ: Sustainable Facilities Initiative

